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ASEAN Space Programmes: Navigating Regional Rivalries

By Dr Quentin Verspieren

SYNOPSIS

Great power competition in the Asia-Pacific is extending to the space domain, providing ASEAN countries with opportunities to translate regional rivalries into support of their existing or future domestic space programmes through cooperation with their powerful space neighbours: China, India, and Japan.

COMMENTARY

Regional rivalries in the space domain have escalated in recent years, with parallel developments in security space capabilities and institutions, and the strengthening of unilateral security cooperation frameworks. These have been fuelled primarily by China's accomplishments in the space and counterspace arenas. In consequence, other regional space powers have also stepped up their game in pursuing space security and diplomacy. Located within this geopolitical hotspot, the ASEAN member states have learnt to navigate these rivalries to benefit their respective space technology development and space utilization objectives and get the best from a rich regional ecosystem.

ASEAN as Laboratory for Space Development and Cooperation

ASEAN provides students of space development in emerging countries with an [ideal case study](#). Firstly, it has a unique social and geographical context. With its huge development and connectivity challenges, and as the region in the world most affected by natural disasters, the development of robust space services is for the ASEAN countries a matter of great importance. Secondly, ASEAN's space development situation is unique with five countries having an established national space programme (Indonesia, Malaysia, the Philippines, Thailand, and Vietnam), four conducting very little or no space activities (Brunei, Cambodia, Laos, and Myanmar), and one with a

distinctive academic-commercial focus (Singapore). Finally, ASEAN is a unique regional grouping with common goals, and with a lot of opportunities and flexibility concerning collaborations with major foreign powers, as for example, in the context of the ASEAN+ frameworks.

Major ASEAN space powers have collaborated extensively with their advanced space neighbours. Despite having one of the world's earliest space programmes and emphasizing national independence and sovereignty, [Indonesia benefited strongly from foreign support](#), first from Japan in the 1960s for rocket development, then from Germany in the 2000s for satellite development. Indonesia also benefited through its participation in regional platforms led by China and Japan, the Asia-Pacific Space Cooperation Organization (APSCO) and the Asia-Pacific Regional Space Agency Forum (APRSAF), respectively. As for [Vietnam](#), the country took its first steps in space – quite literally, when Phạm Tuân, the first Asian astronaut, flew with the Soviet Union's Soyuz 37 mission to rendezvous with the Salyut 6 space station on 23 July 1980. Vietnam went on to develop its current satellite infrastructure with academic, governmental, and industrial support from France, and later Japan. As for [the Philippines](#), the latest entrant in the regional space sector, it based the majority of its early space efforts on an important collaboration framework with Japanese universities, leading to the training of dozens of young engineers and the deployment of the first domestic micro- and nano-satellites.

A Rich Space Ecosystem Fuelled by Regional Rivalries

The rivalries among China, India and Japan have shaped the regional space ecosystem, generating a myriad of opportunities for established or aspiring ASEAN space countries through bilateral or regional cooperation frameworks.

The most visible elements of the regional rivalries are the China-led APSCO and the Japan-led APRSAF. Although often at odds with each other in both journalistic and academic publications, these two platforms are very different in their nature and objectives. Created and led by the Japanese government, and always co-hosted by a local organizer (Vietnam in 2022), the APRSAF is a regional discussion forum which is open to extra-regional countries. It undertakes few projects as its aim is to provide the regional space sector with a regular venue for exchanges and updates on national initiatives in civil space matters. The Chinese APSCO however is a closed membership organization which aims for the conduct of joint technical projects. Other than the projection of soft or normative powers, there is little justification for the description of both frameworks as fierce rivals. In fact, APSCO has been a regular member of the APRSAF.

India and China have also established [regional capacity building centres](#) under the auspices of the United Nations. These are, respectively, the Centre for Space Science and Technology Education in Asia and the Pacific (CSSTEAP, 1995), and the Regional Centre for Space Science and Technology Education in Asia and the Pacific (RCSSTEAP, 2014). These centres provide scholarship programmes, and knowledge and technology transfer opportunities, and hence contribute to the attractiveness of their respective countries.

Other regional activities led by major Asian space powers include business

competitions such as S-Booster Asia, organised by the Cabinet Office of Japan; disaster management frameworks such as Sentinel Asia, established under Japanese leadership as a flagship initiative of the APRSAF; and the provision of space services through the Spatial Information Corridor (SIC) component of the Chinese Belt and Road Initiative (BRI).

Mapping the China-Japan Scramble for Space Influence in ASEAN

Chinese, Japanese, and Indian ambitions over the Southeast Asian space sector have provided a myriad of opportunities for some of the ASEAN countries to leverage on, especially those pertaining to the Japan-China rivalry.

Some countries seem to lean primarily on one side such as the Philippines and Vietnam. The PHL-Microsat programme, which formed the basis of the current Filipino space efforts and which led to the launch of the Diwata 1 and 2 microsatellites, was a major capacity building programme conducted by Japan's Hokkaido University and Tohoku University. Similarly, the Vietnam Space Centre project received a significant loan from the Japan International Cooperation Agency and capacity support from a consortium of Japanese universities led by The University of Tokyo. Following an opposite route, [Cambodia and Laos](#) turned to the state-run China Great Wall Industry Corporation for the obtention of geostationary satellite communication capabilities.

The rest of the ASEAN countries had space relations with both Japan and China. Until cooperation was suspended following the military coup of 2021, Myanmar was receiving support from Hokkaido University while also discussing its involvement in the BRI's SIC with the Chinese government. Indonesia is an active participant (and former organizer) of the APRSAF as well as a member of APSCO, although it has been dormant in the latter platform in recent years. Thailand is also known to work closely and actively with both Japan and China.

The above descriptions are not static, and history has shown that space relations – not unlike general diplomatic relations – are ever-changing. Therefore, this commentary should not be taken as indicative of the future dynamics of ASEAN space relations with their powerful neighbours.

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